## Amendments to the Drawings:

The attached sheet(s) of drawings include changes as listed below. The attached replacement sheet(s) replace the original sheet(s).

The changes are as follows.

Figures 1-11 to cleaned up to eliminate poor line quality and heavy black areas.

Attachment: 11 Replacement Sheet(s)

# REMARKS

The office action of November 15, 2005 has been reviewed and its contents carefully noted. Reconsideration of this case, as amended, is requested. Claims 1 through 9 remain in this case.

Claim 1 was amended to clarify the subject matter being claimed. Support for the claim amendments is found in Figures 2 through 8, and in the specification on page 5, lines 6-27; page 6, lines 9-12-17 and 23-29; and page 8, lines 5-12; 18-24. More specifically, since both the tensioner arm and the guide have two different ends, the ends must be connected by a length.

Claim 5 was amended to fix a typographical error. No new matter has been entered.

The Applicants note the Notice from the Official Draftsman referring to certain informalities in the drawings. Replacement drawings correcting the informalities are enclosed.

The numbered paragraphs below correspond to the numbered paragraphs in the Office Action.

## Objections to the Claims

2. Claim 5 was objected to because the phrase "wherein the pivoting" repeats.

Applicant has amended claim 5 to remove the repeated phrase. No new matter has been entered. Reconsideration and withdrawal of the objection is respectfully requested.

## Rejection(s) under 35 U.S.C. §103

3. Claims 1-5 were rejected under 35 U.S.C. 103(a) as being unpatentable over Young (USPN 6,354,972) in view of Young (USPN 5,797,818). Applicant respectfully disagrees.

Applicant points out to the Examiner that while the references are listed in the order above and labeled as such, the description is for the opposite reference e.g. the discussion of Young (USPN 6,354,972) in the office action is regarding Young USPN (5,797,818) and vice versa. Therefore, throughout the Examiner's argument in the present office action, Applicant has switched the references, to remain consistent with the arguments and information presented. The reference numbers correspond to the appropriate disclosures of each patent.

Young (USPN 5,797,818) discloses a bracket 24 with a guide 22 rigidly fixed to one side of the bracket and a conventional tensioner arm 30 pivotally attached to the other side of the bracket by pivot pin 38. The tensioner arm 30 is dampened by a device 26 mounted between the bracket and the blade spring 40 of the tensioner arm. The bracket is secured to the engine block by bolts 46.

Young (USPN 6,354,972) discloses a chain tensioner 64 that includes a tensioner arm 70 secured to a bracket 68. The tensioner arm 70 is pivotally mounted to the bracket 68 by the first portion 78 of a pivot pin 72. The second portion 80 of the pivot pin is used "during assembly" and "performs the locating function of a fastener" and is "inserted within a bore 98 of the bracket 68 so that a single fastener 100 can be threadly attached to a second fixing point associated with the same or a different engine component to complete the installation of the tensioner assembly to the engine component, as stated in col. 4, lines 36-44. Therefore, the pivot pin 72, as stated in col. 4, lines 45-50, functions i) to provide a reaction support and pivoting means for the shoe sub-assembly, and ii) to provide the locating function of a second fastener." Therefore, after assembly, the only pivoting in the tensioner assembly occurs between the tensioner arm and the pivot point attached to the bracket.

The combination of Young (USPN 5,797,818) and Young (6,354,972) would result in a tensioner with a bracket having a guide rigidly fixed to one side of the bracket and a conventional tensioner arm pivotally attached to the opposite side of the bracket by a pivot pin. The first portion of the pivot pin receives the tensioner arm, which pivots about the pin and the second portion of the pivot pin is received in a bore of the bracket and used during assembly to locate the holes that receive fasteners on either side of the center axis connecting the driving and driven sprockets. A dampening device would be mounted between the bracket and the blade spring of the tensioner arm. When load on the chain would be applied, the tensioner arm would pivot on the pivot pin

Both Young (818) and Young (972) fail to teach or disclose a "at least one bracket plate for surrounding the chain at least partially between the driving sprocket and the driven sprocket, wherein the at least one bracket plate contains **a receiving hole for a pivot at a center axis connecting the driving sprocket and the driven sprocket**...wherein the receiving hole for the pivot is **located between the strands of the endless chain loop and between the length of the chain sliding face of the tensioner arm and the length of the chain sliding face of the guide**; and wherein when a high local load of wave energy is applied to the chain, the high local load is received by an end of the guide **forcing the guide to move away from the chain, such that the at least one bracket plate pivots on the pivot**, moving the tensioner relative to the chain" (emphasis added) as stated in amended claim 1.

Therefore, it is respectfully suggested that the rejection of independent claim 1 as being unpatentable over Young (USPN 6,354,972) in view of Young (USPN 5,797,818) is overcome. Dependent claims 2-5, being dependent upon and further limiting independent claim 1, should also be allowable for that reason, as well as for the additional recitations they contain. Reconsideration and withdrawal of the rejection are respectfully requested.

4. Claim 6 and 8 were rejected under 35 U.S.C. 103(a) as being unpatentable over Young (USPN 6,354,972) in view of Young (USPN 5,797,818) as applied to claim 1 above and further in view of Raymer et al. (USPN 5,221,236).

Again, the Applicant points out to the Examiner that while the references are listed in the order above, they are discussed in the office action in the opposite order, e.g. Young (USPN 5,797,818) in view of Young (USPN 6,354,972). Therefore, throughout the Examiner's argument in the present office action, Applicant has switched references. The reference numbers correspond to the appropriate disclosures of each patent.

Raymer et al. discloses a belt tensioning device for a bicycle. The belt tensioning device includes a triangular plate 44 in which receives a pivot 46 and two rollers 48, 50. The plate 44 is pivotally attached to the frame 10 of the bicycle. When the belt 40 tightens against on the rollers 48, 50, it pivots the tensioner plate 44, forcing the other roller into the belt, preventing slack from occurring. The rollers employ point contact tensioning on either side of the belt.

There is no teach or suggestion in Raymer et al. to combine a belt tensioning device for a belt driven bicycle with the chain tensioners in Young (USPN 5,797,818) and Young (USPN

6,354,972). Raymer et al. specifically calls out the deficiencies of chain drive systems in column 1, lines 26-41, stating:

> "Chain drive systems for bicycles have several deficiencies. When at rest, there is slack in the chain as well as slack between the individual chain links. When the rider begins to pedal, there is a lag time before the rear wheel begins moving since the slack in the chain plus the slack between the individual links has to be take up. All of the slack moves to the bottom section of the chain. This means that the bottom section of the chain is simply being carried along by the drive system without contributing driving force to the system. The use of belt drive systems as drive units has proven to be much more efficient than chain drives in industrial applications. Belts are lighter than conventional chains and they require no oil or grease and are maintenance free, Further, there is no noise that is associated with chain drives and the belt is essentially silent."

Raymer et al. goes on further to state, in column 4, lines 23-27, "...the belt has greater engagement friction than a chain, more surface area in which to transmit torque and requires less force to overcome wrapping of the belt around the pulleys versus wrapping of the chain around the sprockets."

Plus, there is no teaching or suggestion in Young (USPN 6,354,972)or Young (USPN 5,797,818) to combine a belt tensioner with point contacts for tensioning a belt with a chain tensioner that has a tensioner arm with a dampening device between the arm and the spring and a rigidly attached guide as in Young ('818) or a chain tensioner secured to bracket with a pivot pin that allows pivoting of the tensioner arm on a portion of the pivot pin and aides in securing the bracket during assembly with the other portion of the pin as in Young ('972). Furthermore, there is no teach or suggestion to replace the fasteners in either of the chain tensioners in Young ('972) or Young ('818) with the pivot of Raymer et al.

Even if Raymer et al. was combined with Young ('972) in view of Young ('818) (or the reverse) if would not result in Applicant's invention as stated in amended claim 1:

A pivoting chain guide and tensioner assembly for use with an endless chain loop drivingly connecting a driving sprocket to a driven sprocket comprising:

> at least one bracket plate for surrounding the chain at least partially between the driving sprocket and the driven sprocket, wherein the at least one bracket plate contains a receiving hole for a pivot at a center axis connecting the driving sprocket and the driven sprocket;
>
> a tensioner semi-rigidly attached to the at least one bracket plate comprising a tensioner arm with a chain sliding face extending a length of the tensioner arm for contacting the outside of the chain loop, and a biasing means that biases the tensioner arm towards the chain;
>
> a guide rigidly attached to the at least one bracket plate on opposite sides of the chain loop having a chain sliding face with a length for contacting the outside of the chain loop; and
>
> wherein the receiving hole for the pivot is located between strands of the endless chain loop and between the length of the chain sliding face of the tensioner arm and the length of the chain sliding face of the guide;
>
> wherein when a high local load or wave energy is applied to the chain, the high local load is received by an end of the guide forcing the guide to move away from the chain, such that the at least one bracket plate pivots on the pivot, moving the tensioner relative to the chain. (emphasis added)

Therefore, it is respectfully suggested that the rejection of claims 6 and 8, which are dependent on and further limiting claim 1, as being unpatentable over Young (USPN 6,354,972) in view of Young (USPN 5,797,818) as applied to claim 1 and further in view of Raymer et al. (USPN 5,221,236) is overcome. Dependent claims 6 and 8, being dependent upon and further limiting independent claim 1, should also be allowable for that reason, as well as for the additional recitations they contain. Reconsideration and withdrawal of the rejection are respectfully requested.

## Allowable Subject Matter

5. Applicant gratefully acknowledges Examiner's statement that claims 7 and 9 are allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

## Conclusion

Applicant believes the claims, as amended, are patentable over the prior art, and that this case is now in condition for allowance of all claims therein. Such action is thus respectfully requested. If the Examiner disagrees, or believes for any other reason that direct contact with Applicants' attorney would advance the prosecution of the case to finality, he is invited to telephone the undersigned at the number given below.

"Recognizing that Internet communications are not secured, I hereby authorize the PTO to communicate with me concerning any subject matter of this application by electronic mail. I understand that a copy of these communications will be made of record in the application file."

Respectfully Submitted:
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By:_____________________________________________
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